

REMARKS

This application has been carefully reviewed in light of the Office Action dated May 14, 2008. Claims 1 to 24 remain pending in the application, of which Claims 1, 13, 14 and 16 to 18 are independent. Reconsideration and further examination are respectfully requested.

Claims 1 to 12, 14 to 16, 18, 19, 21, 22 and 24 were rejected under 35 U.S.C. § 102(e) over U.S. Patent No. 6,826,597 (Lonnroth), and Claims 13, 17, 20 and 23 were rejected under 35 U.S.C. § 103(a) over Lonnroth. The rejections are respectfully traversed and the Examiner is requested to reconsider and withdraw the rejections in light of the following comments.

The present invention, in one aspect according to Claims 1 and 16, offers a service provided by a server on a communication network. In this aspect, the server sends to a client a service description document defining the type of data exchanged between the server and any client when the service is executed. The service description document comprises a description of a processing functionality implemented during a preprocessing or post-processing of data in XML format of a message exchanged during the execution of the service on the communication network.

In another aspect of the invention according to Claims 13 and 17, the invention tests access to a service by a client computer in a communication network, from a service description document. The client computer, i) extracts, from the service description document, a description of a processing functionality implemented during a preprocessing or a post-processing of data in XML format of a message exchanged during the execution of the service on the communication network, ii) reads a value associated

with a property adapted to specify a node in the communication network adapted to execute the processing, iii) reads a value of a property adapted to specify whether the processing is obligatory or optional, and iv) verifies whether the processing is supported by the client computer in the communication network when the processing is obligatory and must be executed by the client computer in the communication network.

In yet a third aspect of the invention according to Claims 14 and 18, the invention validates a message received by an intermediate computer in a communication network, from a service description document comprising a description of a processing functionality implemented during a preprocessing or the post-processing of data in XML format of the message exchanged during the execution of a service on the communication network. The invention i) extracts, from the service description document, a processing from the received message, ii) acquires from the service description document at least one imperative value associated with a property of the processing, and iii) verifies whether the imperative value is included in a list of values which can be attributed to a property supported by the functionality described in the service description document.

Lonnroth is not seen to teach the features of the invention, and in particular, with regard to Claims 1 and 16, Lonnroth is not seen to teach the features of sending, from the server computer that provides the service to a client computer, a service description document defining the type of data exchanged between the server and any client when the service is executed, the document comprising a description of a processing functionality implemented during a preprocessing or post-processing of data in XML format of a message exchanged during the execution of the service on the communication network.

Regarding Claims 13 and 17, Lonnroth is not seen to disclose

or to suggest the features of extracting from a service description document a description of a processing functionality implemented during a preprocessing or a post-processing of data in XML format of a message exchanged during the execution of the service on the communication network, and verifying whether processing is supported by the client computer in the communication network when processing is obligatory and must be executed by the client computer in the communication network.

As for Claims 14 and 18, Lonnroth is not seen to teach the features of extracting from a service description document a processing from a received message, acquiring from the service description document at least one imperative value associated with a property of processing, and verifying whether the imperative value is included in a list of values which can be attributed to a property supported by the functionality described in the service description document.

In this regard, Lonnroth discloses a XML request document which is created for each request that the pre-processor receives. The XML request document describes the exact request that is sent by the client. A service description document (WSDL document) describes the type of requests the service accepts, but it does not describe a particular request that a client is sending. The service description document is then the same for requests sent by the client. Therefore, the XML request document cannot be seen to be equivalent to a service description document.

Moreover, in Lonnroth, as for each type of client for which a new preprocessing is required, there are as many services as types of clients. Thus, if a WSDL document would be used in Lonnroth, a WSDL document containing one operation for each type of client would be written, and for each operation, a different binding would be

written. Therefore, the client, reading the different WSDL documents can then choose which service/pre-processor to contact. If a service description document as claimed in the present invention were to be implemented in Lonnroth, a single WSDL document containing one operation and a binding with the added feature enabling pre-processing and/or post-processing would exist. Thus, the client, being able to choose the pre-processing, would send its request with a pre-processing instruction within the message, the pre-processing instruction being valid according to WSDL document pre-processing description. Therefore, in the invention, the client can exactly decide what kind of pre and post processing is done to its data, while in Lonnroth, the same pre and post processing is done for each request of a given client type.

Furthermore, in the invention, the client-side computation cost remains the same as all treatments are done by the server. Thus, the invention gives more flexibility to the client while letting the complexity and computation costs remain unchanged. In Lonnroth, if the client is considered as the pre-processor that sends a request to the XML processor, and the XML process is considered as a client that sends a request to the post-processing, service description documents can then be written for the processor and the post-processor. The pre-processor can therefore decide to use these capacities by directly sending the stylesheet to apply to the XML response document directly within the XML request document. The type of stylesheet (XSLT, Perl, Python) is described within the WSDL and the stylesheet sent by the pre-processor must be of this type. However, in Lonnroth, the pre-processor is not aware of any post-processing. In Lonnroth, when a new device is to be supported, both the pre-processor and the post-processor need to be upgraded: pre-processor needs to understand the client request and post-processor needs to

transform the XML response document according to client constraints. In some cases, even the XML processor needs to be updated. However, in the present invention, only the pre-processor will need to be upgraded, as the pre-processor will select the post-processing to be done. If a new post-processing capacity is added (Python processing for instance), the service will be able to advertise its capacities and pre-processors will be able to use these new capacities.

Thus, Claims 1, 13, 14 and 16 to 18, as well as the claims dependent therefrom, are believed to be allowable over Lonnroth.

No other matters having been raised, the entire application is believed to be in condition for allowance and such action is respectfully requested at the Examiner's earliest convenience.

Applicant's undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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